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CLASSIFICATION ~~SECRET~~ [redacted]

CENTRAL INTELLIGENCE AGENCY

REPORT NO. [redacted] 25X1

INFORMATION REPORT

CD NO.

COUNTRY Czechoslovakia

DATE DISTR. 10 Febr. 1950

SUBJECT Development of Weapons at the Podmokly (Bodenbach) Military Technical Institute

NO. OF PAGES 4

25X1 PLACE ACQUIRED [redacted]

NO. OF ENCLS. (LISTED BELOW)

25X1 DATE OF INFO. [redacted]

SUPPLEMENT TO REPORT NO.

25X1

[redacted]

THIS IS UNEVALUATED INFORMATION

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Apart from AT weapons, the following were developed:

1. Rocket projectiles, Hentschel-298, with liquid fuel. These were small airplanes, suspended from the hulls of larger aircraft and released against the targets (bunkers or ships) only when the latter had come into sight. In order to remain visible to the pilot after being fired, the projectile was fitted at its tail with brightly burning luminous discs of powder which were ignited at release. The projectile was controlled from the aircraft by an electro-magnetic gyroscope (short wave control), the aircraft carrying a transmitter, the body of the projectile the receiving set.

The propulsion was effected by means of water-diluted methyl alcohol aided by compressed air. On releasing the projectile, the pilot electrically ignited a percussion cap in the compressed-air valve, thus perforating a tin diaphragm so that compressed air flowed into a rubber balloon in the fuel container. As the balloon expanded, it forced fuel through the pipe conduit into the combustion chamber, where it was ignited, the compression ~~taking place while~~

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compressed air was supplied from a built-in compressed air cylinder. Experiments against ground targets were made in late February and early in March 1949, in [illegible]LACKY (P 49/S 12), Slovakia. Experiments on the Yugoslavian coast had also been arranged but due to the political situation did not take place. Only 3 of the 30 available projectiles at the Military Technical Institute in PODOLSKLY have been fired.

The experiments were directed by staff captains Otto GROSS-MANN and [illegible]. The main experiments were done with the transmission sets and engines. An experimental transmitter for controlling the exhaust gases was installed. It was thought that original projectiles, Rentschel-298, were concerned, which were only tested and fitted with transmitters, each costing about 1 million Czech crowns. New rocket projectiles of this kind were not built at the PODOLSKLY Military Technical Institute.

According to rumors, these operations were to be transferred to the area 11 miles northeast of OLOMOUC (P 49/T 85), probably STERNBERK (P 50/T 85) (Lunatic Asylum).

2. Rockets with liquid propellants were being developed under the management of Staff Capt. Otto GROSSMANN and Libor HOLPICH. Constructional designs were not available and only six experiments have been made in the bunker of the Military-Technical Institute, five of them failing.

A rocket motor similar to that used with the rocket projectile Rentschel-298 is concerned. The ignition was effected without a fuze, viz., by means of an anilin-like substance merging with nitric acid. For the experiments steel cylinders containing compressed air, cylinders with nitric acid, and special white cylinders with the anilin-like substance were used. A valve was opened with the Rentschel-298 rocket projectile, when the liquid with compressed air passed into the combustion chamber, the mixture causing an explosion; the gases escaped through a nozzle.

3. Assisting rockets for airplane take-offs.

Researchers: Vaclav SVARC, Josef CHLAD, and Vaclav [illegible]VANCARA. The take-off assisting rocket was first built for Me-109 and was about 30 inches long, with a diameter about 3½ inches. It was a steel tube with attachment hooks, fitted at the forward end with a stream-lined lug and at the rear with a nozzle. The propelling charge was a powder rod weighing about 30 lbs. Small strips of wood were fixed to its surface with small pins, and there was a 0.8-inch bore-hole for the passage of the gases in the middle of the powder rod. Behind the propelling charge a grate was attached. The powders were tested in the subterranean bunker. The chambers had a standard steel tube closed by a lid on one side, the opposite side being fitted with an exchangeable nozzle. The gas pressure was measured and the nozzle pressure and burning time were determined. The powder samples were later sent to SVETY for the manufacture of charges.

The take-off assisting rockets were tested on Me-109 planes at the KBELY airfield.

The manufacture of take-off rockets for Dakota planes was started in late March 1949. They were said to be 6.6 feet long with a diameter of 13.78 inches.

4. Turbojet power units were built only in Czechoslovakia at the Military-Technical Institute at PODMOKLY, where the disassembled engines left by the Germans were put together again. This was formerly the case with the Jumo engines which, after completion, were fitted into the Me-262 plane.

25X1 [redacted] five BMW-003 engines were being assembled under the direction of Oldrich DUDA, his two assistants Bohous HARDA and Tyzen CA BOCH, and two mechanics of the LIBEREC Military Specialist School for Aircraft Mechanics. These engines had been sent to LETNANY for testing prior to Christmas 1948 and had been taken over by Eng. DUDATA, had been returned to PODMOKLY, then shipped back to LETNANY for installation in planes after the wing attachments had been fixed to them. It was intended to install them in Czech type aircraft.

The hourly fuel consumption of thisBMW-003 power unit was 338 gallons. The mixture was pure petroleum with a small quantity of aviation oil. The engines were started by a Riedl gasoline engine, which started the main shaft with the compressor and the turbine wheel. At about 700 r.p.m., the fuel was forced up by the injection nozzles and ignited in the combustion chambers.

25X1 [redacted] Comment:

a. It has been repeatedly reported that in a section of the Military Technical Institute in PODMOKLY research work is done on guided missiles. The present report confirms these statements.

b. Dating from October 1946, other information is available that work had been resumed in the subterranean plant in PODMOKLY, which was built for the manufacture of V-weapons. This plant was located between the freight station and the Elbe River on the premises of the former Metallwerke F.A. Lange (now belonging to the nationalized plant of Bohmische Metallwalzwerke (Bohemian Metal Rolling Works) and the TG (now belonging to the CKD). The type of V-weapons to be manufactured there is not known. The existing guided missiles indicate that probably part of this production was transferred to PODEBRADY.

c. It seems credible in the case of the reported guided missiles, that it is not the question of postwar production, but of the assembly and testing of parts manufactured during the war, as Czechoslovakia lacks the required technical specialists. In the case of the guided missiles it probably reads Rentschel 293 instead of Rentschel 298 as, according to the description, guided missiles for use against ground targets are concerned. Also the Fs-298 was propelled by a two-stage powder rocket, but the Fs-293 rocket was made for different kinds of propulsion (methanol liquefied O_2 or an anilin liquid as mentioned in para 2).

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d. There is a large troop training grounds in MALACKY where aircraft and ground weapons are tested.

e. Large-scale tests of aircraft weapons had been made in Yugoslavia by Czechoslovakia before the war, especially in CATTARO or the Karst region near MOSTAR. The seven engineers, therefore, were provided for Czech tests in Yugoslavia, but not for Yugoslavia).

f. The use of rockets as take-off assisting devices and flight accelerators (flight boosters) was demonstrated, on Aviation Day, in PRAGUE (September 1947) by the Czech Air Force. These statements are therefore considered correct.

g. The statements on the assembly of turbojet power units are also considered correct. The fact that, from now on, Czechoslovakia will use pure petroleum as fuel for turbojet power units was not known.

h. In REICHENBACH/LIBEREC there is the School for Flight Mechanics.

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